STRATEGIC REVIEW OF CSO CORE FUNDED UNITS
STAKEHOLDER QUESTIONNAIRE

Response submitted by: Queen Margaret University, Edinburgh

1. *How would you change the current arrangements and why?*

   Queen Margaret University would like to see a move towards the systems and structures that are in place in England through the National Institute for Health Research (NIHR), with these structures (such as The Academies) replacing the funded units. Such a change could build upon the success of the units by ensuring that their dual objectives of delivering high quality research/evidence for practice, and building research capacity and capability are given equal attention in the evaluations. The CSO focus on the development of research capacity and capability within the NMAHP workforce provides investment that is vital to developing Scotland's health research workforce.

2. *What outputs have you seen or used from CSO funded units in the past and what health research outputs would you like to see from the units?*

   Queen Margaret University appreciates that the Health Services Research Unit (HSRU), the Health Economics Research Unit (HERU) and the NMAHP-RU, have been successful at attracting a high rate of NIHR funding to Scotland, resulting in a significant return on the CSO investment in the NIHR. Their outputs have been in the form of high impact evidence-based reports and publications that have informed guidelines and practice. All the units make their outputs freely and easily accessible to other end users. The NMAHP-RU operationalised the successful Scottish Government funded Fellowships and we are disappointed that these have been discontinued. The CSO funds no similar schemes for NMAHP researchers and while this is disappointing it also impacts the potential visibility of the NMAHP-RU and its services to researchers in Scotland.

3. *What sort of engagement would you wish to have with CSO funded units?*

   Queen Margaret University believes the units should serve the whole country's research community rather than those directly employed by the units. It is important to stress that the units do produce world-leading research and some have world-leading reputations (eg the HERU) but we would like to see much greater emphasis on the role and responsibility of these units in supporting the capacity and capability of researchers in Scotland in general. The universities that host funded units have an immediate and sustained advantage over others and this benefit was observable in REF 2014 where funded research units played a significant role in the REF ratings of these universities. The Funded Research Units have limited formal engagement with universities such as Queen Margaret University and we believe that they could have greater outreach to institutions like ours to increase collaborative working. This could be achieved through partnerships, associate membership or participation in capacity building activities. The

four units could also increase their engagement with researchers through the provision of training tools around research governance, guidance on what makes for a successful bid, or quarterly newsletters of activity. We are aware from our own experience and engagement with others early and mid-career NMAHP researchers in Scotland, have few supported/facilitated opportunities to advance in a systematic way to Senior Scientist status. The development of a broader range of support and development opportunities similar to NIHR funded programmes in England would enable this to happen.

4. *What do you consider should be the principal objectives, activities and responsibilities of CSO core funded units, and what should be the advantages, added value and outcomes from this funding?*

   The principal objectives should be:

   a) facilitating capacity and capability building in research
   b) developing training and development opportunities similar to the academies model in England
   c) developing career progression structures, processes and resources for researchers
   d) Engaging in leading research in collaboration with other Scottish Institutions
   e) developing a critical mass of health research expertise to meet the needs of Scotland's health academic/clinical academic community through externally funded research that meets clinical need
   f) retaining health research expertise in Scotland in light of international competition

   The added value from CSO core funding should be measured against:

   - the quality of research outputs and researcher development opportunities
   - the beneficiaries of the research outcomes
   - the scale of the impact of the research
   - how under-represented groups are supported in funding bids
   - career progression to Senior Investigator through systematic development programmes

5. *Do the current arrangements support both research excellence and the production of research that is responsive to pressing health policy and practice needs or are there disadvantages of this and would different arrangements or alternative models (such as the models set out in the review panel's terms of reference) be more appropriate?*

   The current model does support both research excellence and the production of research that is responsive to health policy and practice needs, however Queen Margaret University believes that this has been achieved at the expense of a more collective responsibility to the Scotland-wide research community. Improvements to the current arrangement could be achieved through calls related to emerging areas of priority that are adjusted across time, as well as multidisciplinary team/health and social care partnership bids to extend collaboration beyond cross-institutional to more patient-centred calls.

6. *What criteria and processes should CSO apply to considerations about continuing, discontinuing and establishing core funded units (or alternative models of research support), including the exit strategy if funding is discontinued?*

   Queen Margaret University would like to see the CSO funded units morph into an academies model and research support units with active engagement with the whole research community. The primary criteria should relate to demonstrating achievement of agreed objectives, sustained external grant income, high quality research outputs with a strong submission to the Research Excellence Framework, and evidence of growing research capacity and capability via researcher development programmes. Furthermore, criteria should be centred around impact, legacy and sustainability while being contemporaneous. More cross-sector engagement from the current funded units would be welcomed.

STRATEGIC REVIEW OF CSO CORE FUNDED UNITS
STAKEHOLDER QUESTIONNAIRE

Response submitted by: ***Chief Nursing Officer's Directorate, Scottish Government***

1. How would you change the current arrangements and why?

   Currently the units are very focussed on their specific remit, based around their staffing (NMAHP-RU being our main contact). The units are seen as centres of excellence, rather than as units to support broadly across the country.

   There needs to be a broader focus on supporting research across Nursing Midwifery Allied Health Professions (NMAHPs) across Scotland, and on allowing more people to access the facility.

   There needs to be more linkage between SG and practice, and the units (particularly for us that is Chief Nursing Officer's Directorate (CNOD) and Scottish Executive Nurse Directors (SEND)) in terms of overarching strategic planning for research.

   The success of the units could be better focussed on the units themselves, rather than on the staff (although recognising the difficulty that creates in attracting internationally recognised staff).

2. What outputs have you seen or used from CSO funded units in the past and what health research outputs would you like to see from the units?

   We have used a range of policy reports, some of which have been commissioned by us. Examples include maternity, child health and midwifery policy.

   These have been a good strategic fit and unit work supports policy eg national maternity survey, work on GIRFEC, current work on measuring continuity of carer.

   More outputs relating to short and long term policy are needed.

3. What sort of engagement would you wish to have with CSO funded units?

   There needs to be more connection, and pro-active engagement, with our chief groupings, such as CNOD, SEND, Heads of Midwifery, AHP Directors, Council of Deans, NES, to set 3-5 year strategic goals.

   Where work is commissioned, the outputs need to be focussed on the needs of the commissioners, rather than on what research or output the team would like to produce.

4. What do you consider should be the principal objectives, activities and responsibilities of CSO core funded units, and what should be the advantages, added value and outcomes from this funding?

   Building and supporting national NMAHP research capacity and capability, doing national research to support national policy, service or education imperatives

   Focus on Scottish national priorities.

   The advantage is that they have a good understanding of the Scottish context, and are able to be immersed in that, while research funding and units elsewhere in the UK do not understand the devolved nature of Scotland.

   They are also able to focus on Scotland, which other units are not able to.

5. Do the current arrangements support both research excellence and the production of research that is responsive to pressing health policy and practice needs or are there disadvantages of this and would different arrangements or alternative models (such as the models set out in the review panel's terms of reference) be more appropriate?

   There are various responses within the directorate for this. As above, this is a problem, and it is about how the units are perceived as much as anything.

   It is not always clear how they support the government, and there is frequently a charge for all their services. For example we have asked for core policy research information, but it is chargeable.

   A policy research unit approach would be useful for SG/CNOD. Co-production, with key service and education partners (as above) would be useful.

   There is not a structure to support research development in midwifery . There is no succession planning around midwifery researchers and academics, and the NMAHP-RU doesn't support that type of process.

   Whatever the structure it needs to open doors for research but also for research to partner with implementation.

   There is little emphasis on healthcare science, especially compared to England, especially limited opportunities for non-medical healthcare science. Funding goes to clinicians, not the healthcare scientists.

6. What criteria and processes should CSO apply to considerations about continuing, discontinuing and establishing core funded units (or alternative models of research support), including the exit strategy if funding is discontinued?

The need for national support to build research capacity and capability is key in this case, alongside success and productivity ie return for investment.

A secondment model of staffing, to help with succession planning and growth, not be a single career space, would be useful.

It would be helpful to have broader involvement of unit staff with SG to get better engagement.

UNIT DIRECTOR QUESTIONNAIRE

Response submitted by Health Services Research Unit (HSRU), University of Aberdeen

1. How would you change the current arrangements and why?

We would not propose any substantive change to the current arrangements. The current arrangements of core-funded units provide a number of advantages for academia, government, the NHS and the Scottish people.

- A core-funded unit exists as a discrete entity with a dedicated focus. Its primary consideration is the value of the work to influence policy and practice and hence improve healthcare and healthcare delivery; it is not diverted or diluted by other agendas;
- Can take a long-term view, with a broad multidisciplinary perspective. There is space for strategic responsiveness, and activities can be redirected over time. The combination of flexibility and sustainability provided by core funding nurtures ambition and creativity, resulting in strategic investments in specific under-researched areas or to meet national needs. It also provides the environment for developing innovative research methods to provide more robust information for decision-making;
- Allows a critical mass of experienced researchers to work together in a collaborative manner;
- The longer-term horizon provided by core funding facilitates the recruitment and retention of high quality researchers;
- Core funds used as seed corn can grow a unit over a number of years into a substantially larger organisation;
- With core funding, a unit can become a centre of excellence distinguished by the quality of its work and coherent leadership it provides for Scotland;
- A network of core funded Units, working together in complementary areas, produces synergies between them.

HSRU has clearly demonstrated that it fulfils all these advantages and as centre of excellence in health services research makes significant impacts to policy and research (see response to question 4/5 for specific details).

There are a number of possible alternative models of investment, none of which would wholly replace the advantages of a core funded Unit:

(a) *response-mode project funding* can complement core funding of a unit by providing shorter-term support via a number of more modest grants. This approach alone cannot replace core funding because:

- the research funded would be restricted to the applications received, allowing only limited coherence of the 'body' of research undertaken;
- interdisciplinary perspectives could be narrow;
- the research effort could be too diffuse to be competitive at a UK and international level;
- the modest size of grants available could restrict ambition; leading to a distorted portfolio;
- at a research team level, uncertainties of success and timing of project funding lead to periods of 'feast' and 'famine' (when there are insufficient funds to sustain the team and key members are forced to leave);
- for individual researchers, the short-term nature of project grants (with no bridging funds available) generates a sense of instability with no clear career progression. This in turn lowers morale leading to high staff turnover and migration of researchers to other jobs with more stable funding.

A suggested potential change to current arrangements is to ring-fence some of the current core grant for "on-call" response to Government priorities. This may enable, time bound discrete pieces of work to be undertaken. The downsides are as above, and our experience of operating such a contract arrangement with the NIHR Technology Assessment Reviews Programme clearly illustrates that marshalling a team together at the time of the request with all the competent skills can be difficult when the exact timing of work is not known, but can be achieved by a Core funded Unit.

(b) *programme funding* is most commonly used to support a limited number of inter-related, prescribed studies over a relatively long but fixed time period. The Policy Research Units in England have this type of funding, focussed around policy "areas" e.g. behavioural science or obesity. Programme grants have the following disadvantages compared with core funding:

- their view is limited to the programme's perspective;
- they lack the strategic flexibility of core-funded units;
- they have limited capacity to respond to changes in the government policy and priorities;
- they are less suitable for generic skills-based initiatives, such as health services research;
- they have less scope than units for capacity building;
- they have difficulties completing the programme as staff leave for more secure posts towards the end of the grant;
- they often prove unsustainable when the programme grant draws to an end.

(c) *personal funding* for promising individuals complements core funding. Success, however, depends on there being a wider health service research environment similar to that provided by a core-funded unit:

- to identify and nurture potential candidates in the first place;
- to support candidates to develop and deliver suitable projects;
- to provide high quality bespoke training;
- to give high quality support and ongoing supervision;
- and to provide opportunities for career development after the fellowship or studentship has been completed.

HSRU's vibrant research environment continues to perform this function for the CSO through supporting several CSO funded NRS clinical academics who are funded as promising Scottish clinical academic leaders.

2. What is the Unit's strategy to help ensure alignment of its research with Scottish Government policy priorities, and important NHS challenges?

The Unit seeks to ensure that the totality of its research portfolio is relevant to the needs of the NHS and to the Scottish Government. Our portfolio of research also maps directly onto the stated policy ambitions of the Scottish Government, maximising the direct relevance of our work to the service. The Unit has a yearly independent Unit Advisory Group comprised of stakeholders including Scottish Government, NHS, Health Improvement Scotland and senior academics that advise on the Unit direction and research portfolio. Every 5 years, the Unit has undergone rigorous independent assessment of its strategic need and scientific research output and direction. The quinquennial review addresses the past work and provides independent assessment of future plans. The Unit has been further exploring the use of more focused meetings with Scottish Government and other NHS stakeholders to improve understanding of research, priorities and 'horizon scanning'. In addition, building informal bilateral relationships helps us to anticipate upcoming policy issues. We encourage policy makers to be co-applicants on grant applications. Research studies typically take a number of years to craft, execute and deliver. It is also true that some of the more pressing policy issues are themselves long term. For example, there are no quick solutions for the transition to more person centred care or a reduction in social inequalities in health. Consequently, at any particular time, the Unit's portfolio of work can be mapped forward for a number of years.

To maximise the impact of our research on Scottish Government policy, the Unit connects and communicates with NHS Scotland, the Scottish Government and our wider stakeholders through various targeted mechanisms and bilateral relationship building with key individuals in policy and government such as: advisory roles; running dissemination events; engaging with professional bodies; Research Updates to CSO (circulated round Scottish Government through Chief Medical Office); bi-annual HSRU Newsletter (which is distributed to a wide range of stakeholders including hospital managers and clinicians); websites and increasing use of social media methods (e.g. blogs, YouTube, Facebook and Twitter). During the last 5 years, Dr [REDACTED] ([REDACTED] of Quality Improvement Scotland 2003-9) was commissioned to undertake a review of our stakeholder engagement strategies. The review highlighted many strong engagement activities and an enthusiasm from both sides to facilitate future liaison but recognition that there is no easy solution to effective engagement. Dr [REDACTED] was subsequently appointed as an honorary research fellow in HSRU with a remit to provide a conduit to policy stakeholders and strengthen engagement. This arrangement continues today. We provide expertise and support to a number of NHS organisations and groups, as well as being members of various Government and NHS committees.
Examples include:

- **A strategic alliance with Healthcare Improvement Scotland** (HIS), providing advice and sharing knowledge, including providing bespoke training courses (e.g. diagnostic test assessment) and organising a joint annual conference. The HSRU Director is also a member of the HIS Evidence Directorate Research Strategy Committee.
- **HIS Evidence Review Committee for the Scottish Health Technologies Group**, providing health services research expertise, which meets once a month to make decisions on advice for NHS Scotland on whether new procedures should be made available in the NHS in Scotland.
- **Advisor to Scottish Government**, including the Advisory Committees on the role of mesh in prolapse; the reconfiguration of trauma services in Scotland and the Scottish Health Literacy Action Plan.
- **Chair and lead the NHS Education Scotland TRiaDS programme**, a national programme of improvement research in dentistry, pharmacy and optometry.
- **Presentations at a number of high-level Scottish Government Advisory Committees** – Scottish Medical and Scientific Advisory Committee; Scottish Association of Medical Directors; and Scottish Government medical officers continuing professional development sessions.
- **Provide expertise to Scottish Health Technologies Group on specific advice products** e.g. qualitative research input to the SHTG technology appraisal on antimicrobial wound dressings, the recommendations from which are being implemented presently by Scottish Government across NHS Scotland.
- **Membership of various grant awarding panels in Scotland and beyond**, including: Scottish Government/Royal Society of Edinburgh Biomedical Selection Sub-Committee; CSO Health Improvement, Protection and Services Research Committee; various Medical Research Council (MRC) and NIHR panels.
- **Representing Scottish interests at national oversight committees**, for example NICE Citizen Council; Health Research Authority; NHS England Specialist Advisory Groups; UK Clinical Research Collaboration.

3. How does the Unit support patient and public involvement in research, training, and research capacity building?

Patient and public involvement in research

HSRU has embedded patient and public involvement in research as a core function of our Unit. We have formally integrated our patient and public involvement into the broader strategic direction of the Unit by creating our own PPI group. This group informs on both Unit level strategies and project specific PPI perspectives. To support our activities and training on PPI we appointed Dr [REDACTED] to a dedicated part-time post as Unit PPI lead, this is to our knowledge currently the only such role in Scotland. We also appointed Professor Louise Locock, an international leader in PPI research, to support and grow our PPI strategy. The Unit actively involves public and patients as partners with our research projects together with patient representative organisations e.g. Health and Social Care Alliance; INVOLVE. We regularly use Scotland's SHARE Register for identifying public and patient partners to take on collaborative roles within developing and ongoing projects. We often work with the James Lind Alliance to identify key priorities for patients and clinicians. We are currently in discussions with NHS R&D about providing a specific training course for PPI in research. We have effective partnerships with our public and patient partners through involvement in research projects across various stages of the research lifecycle, as discussants, grant applicants, co-authors, and members of steering groups. We have creatively linked our engagement activities with our involvement activities so that there is iteration between the public engaging at events and becoming involved as partners with our research.

The Unit has an unambiguous commitment to engagement and has received national recognition for leading innovative activities. We have increased capacity for public engagement with a team of Unit staff who work in collaboration with the University's Public Engagement in Research Unit to deliver a range of engagement events throughout the year. These include interactive presentations; family activities at local science festivals; public 'cafe style' talks; and schools outreach. Events are often run as part of national festivals (e.g. British Science festival, Explorathon, Edinburgh Fringe). The Unit engagement work won an award from the Marie Curie Alumni Association Scotland for its "Polo Trial" and has also been invited to present our activities at the European Parliament. Unit staff have face-to face "engaged" with over 2000 children and adults across Scotland in the last 12 months.

Capacity building in research

The Unit has a strong commitment to developing research capacity in health services research. Capacity building and staff development are essential for sustained contribution and excellence in health services research and to developing the health services workforce of the future. Over the last 5 years, capacity was developed in the following ways:

• **Developing research leaders**, by providing longer term career planning at senior level;
• **Building a cadre of researchers at entry and middle levels** – the external grant income and research outputs has provided exceptional opportunities for attracting and training bright early career researchers;
• **Formal training** - secured competitive funding for MRC Studentships and fellowships; CSO studentships; CSO postdoctoral funding and supports several NHS Research Scotland (clinical) career fellows; The Health Improvement Studies Institute PhD and postdoctoral fellows.
• **Knowledge and generic skills** beyond single, specific health services research disciplines – all projects involve working with others outside HSRU. The multicentre projects have directly involved *collaborating with several hundred NHS staff* across Scotland and the UK.
• **Encouraging entry to HSR training and research and building HSR literacy** through teaching on various Masters' level programmes (e.g. Masters in Public Health; Masters in Global Health; Postgraduate Certificate in research methods for health) and contributing elective courses (e.g. qualitative methods; systematic reviews and values and ethics in Public Health) and supervising MSc dissertations.

Training

The Unit has a multipronged approach to training in health services research. These include:

- Clinical placements/working relationships and learning (e.g. supervision of clinicians and building of skills even when not on formal fellowships). We have, and continue to support several NHS Research Scotland fellows (these are the next generation of research leaders in Scotland that have sessions of their NHS time funded to undertake research only). HSRU actively encourages collaboration, visits and secondments from within and beyond Scotland.
- Since 2016 we have introduced a programme of paid summer placements to undergraduate students. In our first three years we have had 18 students take up 8-week internships working on e.g. design and implementation of the new public facing website for future trials; systematic review of non-randomised evaluations of strategies to improve participant recruitment
- Since 2018, developed and run an online course in real-world trials (the first of its kind in the UK) that is available to anybody and the first cohort included staff from Information and Statistics Division, NHS Scotland.
- Specialist workshops to NHS organisations (e.g. Diagnostic study reviews for Healthcare Improvement Scotland; NHS Scotland Supporting Academic Research Courses; NHS R&D workshops on grant writing)
- Host regular methodology training events as external experts (e.g. lead sessions on Edinburgh Clinical trials Management Course).

These multiple strategies have led to growth and depth in the expertise of Unit staff, NHS staff, and other researchers, and promoted health services research to a wide range of audiences and agencies nationally and internationally.

4. What is the added value of CSO's investment in Units?

Investment in health services research has continued to retain Scotland at the forefront of UK healthcare research in an increasingly competitive environment. Scotland needs high quality health services research in order to make the best evidence informed decisions for ensuring first-class services as NHS Scotland takes decisions independently from other parts of the UK, and to address other issues of particular relevance to its priorities, such as realistic medicine or patient safety, health inequalities, long-term conditions and equity of services. The way services in Scotland are organised also increasingly differs from other parts of the UK. This differentiation makes it important that Scotland has a strong internal capacity for researching health and social care service organisational and process issues and also raises unique research opportunities for comparative research on quality of care and the patient experience.

Health and wealth are inextricably linked. The UK has a comparative advantage in the life sciences where the UK and Scotland punch above their weight internationally. All four UK nations have developed health wealth and innovation policies that place life sciences front and centre. The potential of the life sciences to achieve this will only be realised if the right treatments get to the right people at the right time. Health services research has a significant contribution to make in this area, strengthening the contribution of the life sciences to the economy and ultimately to the wealth and health of the Scottish people.

The core funding enables a Unit to be distinguished by the quality of its work, competitiveness, visibility, reputation, impact and the focussed and coherent leadership it provides for Scotland. For example, HSRU has used the economic muscle of internal and external research funding to promote Scottish Government's health, wealth and innovation agendas. CSO core funding enables HSRU to leverage substantial research income into Scotland, increasing quality and spread of health services research skills. The core funding has positioned the Unit to routinely compete successfully for external grant income at a UK and international level, where the amounts of money greatly exceed those available in Scotland alone. From a CSO investment of £4.4 million in HSRU over the last 6 years, HSRU has *engaged in research worth £100 million* (brought in £72 million new grants; £28 million in ongoing grants), annually administering £12 million worth of new grants. Of the £72 million awarded in new grants in the review period, £27 million went directly to Aberdeen; £26 million to other Scottish Universities and NHS Scotland organisations, and £19 million beyond Scotland (England and internationally). **This means that for every £1 the CSO invested, the Unit has generated £16 in research monies alone (£6 back into the Unit; £6 across Scotland and £4 outside of Scotland).** *It should also be noted that the University of Aberdeen has match funded the CSO investment throughout that time.* This exceptional level of return on investment across Scotland is only possible through the strategic use of core funding to provide a dedicated focus. Such income generation spread across Scotland institutions would not be possible without core funding as Institutional priorities would be pursued instead of Government priorities. Unit's primary consideration is the value of the work to Scotland and is not diverted or diluted by other agendas. The ability to take a longer term view gives space for strategic responsiveness and the combination of flexibility and sustainability enables HSRU to nurture creativity and ambition. The core funding also facilitates the recruitment and retention of high quality researchers and provides a strong sense of group sustainability and succession planning, improving efficiency through a skilled workforce.

5. Do the current Unit funding arrangements support both research excellence and the production of research that is responsive to pressing health policy and practice needs or would different arrangements be more appropriate?

The current arrangements support both. There is no doubt that the core-funding has supported research excellence. Our continuing research excellence was evidenced in the 2014 UK Research Excellence Framework (REF 2014) with the top return in Scotland for its unit of assessment (Public health, HSR and primary care). Feedback from the assessment panel explicitly highlighted the exceptional strength and depth of health technology assessment (randomised trials and evidence syntheses) at the University of Aberdeen. Further, in REF 2014 the impact of research was also assessed. Staff from HSRU led the research for three of the six Impact Case Studies submitted by the Institute of Applied Health Sciences. All case studies were graded as internationally excellent by the REF panel. In preparations for the next REF exercise, all core funded research staff have already been assessed and will again be returned. Over the last 5 years, HSRU alone completed 101 projects and 120 new projects received external funding. This amount of research activity has been translated into 307 peer-reviewed research publications (many in high impact journals e.g. NEJM; Lancet) and 252 presentations (50% as invited speakers). HSRU's continuing research excellence, together with our sister Unit the Health Economics research Unit, was evidenced in November 2017, when the University of Aberdeen won the highest national honour for a UK university - the Queen's Anniversary Prize for Higher and Further Education, awarded in recognition of the University's sustained excellence in world-leading health services research. The sustained excellence demonstrates that research quality is consistently applied over time - only achievable through core-funding and continual rigorous external assessment of the relevance of the work.

The Unit focuses its research on informing and supporting the delivery of Scottish government policy. At a government level, the Health and Social Care Delivery plan shapes policy over the coming years, and the plan reflects the Scottish vision detailed in The Chief Medical Officers (CMO) Annual reports on Realistic Medicine and the publication of the National Clinical Strategy for Scotland. This vision is reflected by the following key priorities: (i) ***better care*** – ensure that people are at the centre of decisions that affect them; (ii) ***better health*** - plan and deliver services to improve health and (iii) ***better value*** - providing high value from all resources, going beyond efficiency to a sustainable health care. HSRU focuses its research to explicitly support the delivery of these three tenets by providing new knowledge to facilitate the transformational change in the way services can be provided. All new research projects are assessed against this Unit remit and therefore the Unit is closely aligned to policy needs. Nevertheless there are a few situations where the Unit cannot be responsive to undertake work for government bodies. Short timescales, inappropriate skillset and unrealistic funding arrangements for required deliverables are the reasons for not undertaking some priority work. In all circumstances we do signpost to and engage with research teams that may be in better position to undertake such work – this is an important remit of a national core-funded Unit. As mentioned in response to question 1, a potential way to achieve closer responsiveness may be to ring-fence some of the Core funds for such work. Such an arrangement would need careful consideration of the types of skills and products that would be needed. A Core-funded Unit, or network of such Units, set up with only this type of engagement in mind would not deliver research excellence and would be difficult to recruit and retain staff to.

Examples of our NHS Scotland impacts include:

- **Informed the planning of major trauma centres across NHS Scotland** with our research on the geospatial configuration of trauma centres informing the National Planning Forum's consideration on whether and how to introduce major trauma centres.
- **Led the international research on use of mesh in prolapse surgery for women –** conducted the largest series of pragmatic trials and evidence syntheses to inform national and international policy on the safety and efficacy of mesh; member of government advisory committee on safety of mesh.
- **Provided the underpinning evidence for the introduction of robotic surgery for radical prostatectomy in the UK -** study informed the Scottish Government decision to invest in robotic prostatectomy
- **Produced a 7% reduction in annual antibiotic prescribing** in dental practices nationally resulting in over 20,000 fewer antibiotic prescriptions across Scotland annually since 2014.
- **Developed new insights into many aspects of delivery of care in Scotland**, including conceptual understanding and implications of person-centred care; use of self-administered health monitoring technologies to support the self-management of long-term conditions; and the role of mobile bone scanning units.
- **Synthesised evidence and conducted research that has been directly incorporated into 44 national and international clinical guidelines that are applied to hundreds of thousands of people in Scotland -** clinical conditions included common diseases such as high cholesterol and diabetes.
- **Supported the design and evaluation of initiatives and studies led from across Scotland** - e.g. partners in EuroFit (promoting lifestyle changes in football fans across Europe); independent evaluation centre of the Intensive Care Syndrome: Promoting Independence and Return to Employment (InS:PIRE) rehabilitation programme.
- **Changed international recommendations for the management of ureteric colic from kidney stones**
- **Transformed NHS Scotland dentists' management to prevent dental caries in children**. We designed and conducted a nationwide trial of different methods to increase uptake of fissure sealants in children. The key finding, that a fee-for-service model would increase uptake, led to the Chief Dental Officer for Scotland changing the national contract for dentists, to encourage uptake. The number of children receiving fissure sealants doubled after the contract change.

Child and Maternal Health Directorate response to Stakeholder Questionnnaire

- Child & maternal health has had virtually no engagement with the units and were entirely unaware of their work. The units lacked visibility and engagement within this part of the Scottish government.
- The alignment of the units work with SG child and maternal health policy seems very low and its impact on policy development seems very low. There should be more emphasis on areas of policy priority such as prevention of disease through public health improvement.
- Child and Maternal health policy could be incentivised to engage with the units by more projects supporting policy agendas.
- Supportive of a proportion of unit funding being separate from the research budget and earmarked for fast turnaround responsive work commissioned by policy makers similar to the policy research unit model.
- For funding of the units to continue their needs to be a clear benefit seen and they should demonstrate impact.
- Not clear what proportion of the core funding is spent on infrastructure and what proportion is spent on research.
- Open competition for unit funding should be considered

Response submitted by: Council of Deans of Health Scotland

1. How would you change the current arrangements and why?

The Council of Deans of Health Scotland takes the view that it would be helpful to build upon the success of the units by ensuring that their dual objectives of delivering high quality research/evidence for practice, and building research capacity and capability are given equal attention in the evaluations. The CSO focus on the development of research capacity and capability within the NMAHP workforce provides investment that is vital to developing Scotland's health research workforce.

Some of our members, particularly those who have been closely involved with the Nursing, Midwifery and Allied Health Professions Research Unit (NMAHP RU), would like the current model of core CSO funding to continue. For example, the School of Health & Life Sciences at Glasgow Caledonian University has developed strong relationships and increased collaborative working with the co-hosted NMAHP RU. The School believes that CSO funding for the NMAHP RU provides a degree of core researcher stability in an otherwise uncertain funding landscape, enabling longer-term, programmatic approaches to research to grow.

Some members of the Council of Deans of Health Scotland would like to see a move towards the systems and structures that are in place in England through the National Institute for Health Research (NIHR), with these structures (such as The Academy, Research Support Units) replacing the funded units. Models that offer close integration of NHS/IJBs and academic research agendas (such as the NIHR Collaborations for Leadership in Applied Health Research and Care) would be particularly welcomed. In order to allow the HEI sector to recruit competitively from across the UK, a move to honour personal awards (such as NIHR Senior Investigator Awards) would be valuable.

2. What outputs have you seen or used from CSO funded units in the past and what health research outputs would you like to see from the units?

Overall, our members thought that the units' websites are easy to access and navigate to search for projects, publications and reports. The work is clearly linked to policy priorities. Members were primarily aware of outputs linked to the NMAHP-RU and the Scottish Government funded fellowship scheme processed through NMAHP-RU (now discontinued). Our members also appreciated that the Health Services Research Unit (HSRU), the Health Economics Research Unit (HERU) and the NMAHP-RU, in particular, have been successful at attracting a high rate of NIHR funding to Scotland. Their outputs have been in the form of high impact technical reports and publications. These have gone on to inform guidelines and the highest quality syntheses of evidence for practice.

3. What sort of engagement would you wish to have with CSO funded units?

Council of Deans of Health Scotland members emphasised that the units should serve the whole country's research community rather than those directly employed by the units. It is important to stress that the units do produce world-leading research and some have world-leading reputations (eg the HERU) but members would like to see much greater emphasis on the role and responsibility of these units in supporting the capacity and capability of researchers in Scotland in general. The School of Health & Life Sciences at Glasgow Caledonian University said it

had strong engagement with the NMAHP RU based at the University, including collaborative working on externally funded research projects. Where collaborations with NMAHP RU has been achieved, it has been very well received (one example being the establishment of a small number of Re-engagement Fellows administered through the Unit). However, it recognised that this has been enabled by NMAHP RU facilities being located on its campus but was not the same for researchers working in other Schools of Health.

Our members described limited formal engagement with the other three units and suggested that they could have greater outreach to other research institutions to increase collaborative working. This could be achieved through partnerships with the academic sector in Scotland, associate membership or participation in capacity building activities. The four units could also increase their engagement with researchers through the provision of training tools around research governance, guidance on what makes for a successful bid, or quarterly newsletters of activity. Council of Deans of Health Scotland members are aware that there is a strong track record among early and mid-career NMAHP researchers in Scotland, but there are few supported/facilitated opportunities for them to advance further in a systematic way. The development of a broader range of support and development opportunities similar to NIHR funded programmes in England would enable this.

4. What do you consider should be the principal objectives, activities and responsibilities of CSO core funded units, and what should be the advantages, added value and outcomes from this funding?

The principal objectives should be:
a) facilitating capacity and capability building in (specific areas of) research
b) developing Scotland-wide training and development opportunities similar to the NIHR Academy model in England and research mentorship
c) developing career progression structures, processes and resources for researchers
d) leading and collaborating in world-leading research
e) being at the forefront of methodological and facilities developments that enable world-leading research, including models of partnership in research with patients and the public
f) developing a critical mass of health research expertise to meet the needs of Scotland's health academic/clinical academic community through externally funded research that meets clinical need
g) retaining health research expertise in Scotland in light of international competition

The added value from CSO core funding should be measured against:

- the quality of research outputs and researcher development opportunities
- *the beneficiaries of the research outcomes*
- *the scale of the impact of the research*
- *how under-represented nursing, midwifery and allied health professions are supported in funding bids*
- *career progression to Senior Investigator through systematic development programmes*

5. Do the current arrangements support both research excellence and the production of research that is responsive to pressing health policy and practice needs or are there disadvantages of this and would different arrangements or alternative models (such as the models set out in the review panel's terms of reference) be more appropriate?

The current model does support both research excellence and the production of research that is responsive to health policy and practice needs, however some of our members felt that this was achieved at the expense of a more collective responsibility to the Scotland-wide research community.
Improvements to the current arrangement could be achieved through calls related to emerging areas of priority that are adjusted across time, as well as multidisciplinary team/health and social care partnership bids to extend collaboration beyond cross-institutional to more patient/public-centred calls.

6. What criteria and processes should CSO apply to considerations about continuing, discontinuing and establishing core funded units (or alternative models of research support), including the exit strategy if funding is discontinued?

Some of our members would like to see the CSO funded units morph into an academies model and research support units with disciplinary and geographic diversity to engender active engagement with the whole research community. The NIHR 'Schools' model would also be welcomed, offering a confederation approach to capacity, methodological and research programme development.

The primary criteria for evaluation of existing units should relate to demonstrating achievement of their agreed objectives, e.g. sustained external grant income, high quality research outputs with a strong submission to the Research Excellence Framework, and evidence of growing research capacity and capability via researcher development programmes.

Furthermore, criteria should be future-focussed in relation to the overall strategic objectives of the CSO eg centred around impact, legacy and sustainability while being contemporaneous. For example, more cross-sector engagement from the current funded units could be incentivised if this were to be a criteria for future funding.

STRATEGIC REVIEW OF CSO CORE FUNDED UNITS
UNIT DIRECTOR QUESTIONNAIRE

Response submitted by: ***The Nursing, Midwifery and Allied Health Professions Research Unit***

1. How would you change the current arrangements and why?

We support continuation of the current arrangement of the unit being hosted within HEIs with core funding for a number of key Unit staff from CSO. This gives the Unit the ability to maintain a stable long term basis for developing research capacity and capability and for delivering on longer term research goals and impact. Under the current arrangements the NMAHP Research Unit has become only part-funded by the CSO and we now have a similar level of investment being provided from across our two host HEIs. As the Unit's CSO funding has remained static since 2012 (no uplift), the host HEIs have absorbed the shortfall and they now contribute £342k per annum to CSO costs as well as further investment. This arrangement has never been formally agreed between the CSO and the HEIs and the Unit Director has negotiated the management of this deficit and any further investments by the host HEIs.

There are many benefits from a joint investment model: the Unit is integrated into the host HEIs and can help to develop research capacity and capabilities in other colleagues and can develop multi-disciplinary partnerships across Schools/Faculties. Unit staff can also make a contribution to other HEI research related roles such as research ethics and governance and peer review processes.

Reliance on HEI funding however means that the Unit cannot remain fully autonomous and the NMAHP RU currently has 3 equal partners in terms of investment. So far this has not impacted on our strategic planning to any significant degree as the HEI priorities are mostly in line with CSO priorities (to attract research funding and demonstrate impact). However, when fiscal savings are required or other HEI colleagues struggle to deliver teaching commitments, there is always some degree of pressure to contribute to the HEIs pressing needs.

The day-to-day relationship with the host HEIs and the maintenance of autonomy by the Unit Director would be better served if the funding arrangements and expectations by all parties could be clear. The NMAHP Research Unit operates with two different funding/investment models from each of its two HEIs. This is not necessarily problematic, however, in the absence of any formal agreement with CSO regarding funding models, the HEIs are at liberty to change these arrangements at any time and without consultation with the Unit (Director).

2. What is the Unit's strategy to help ensure alignment of its research with Scottish Government policy priorities, and important NHS challenges?

Since its inception, the Unit's strategy has always been to have close links with Scottish Government and NHS Scotland to meet its remit of improving the health of people in Scotland. In particular, it maintains a close working relationship with the Chief Nursing Officer (CNO) for Scotland to respond, with timely research, to requests for evidence to enable strong decision

making. Recent examples include: producing reviews of evidence to support policy decisions relating to the value of transformed nursing roles, the clinical supervision of midwives, the roles of school-based and practice nurses, evidence for safe staffing, and communication errors; and bespoke evaluation of large scale intervention roll-out such as the ScoPIC study. In addition to our support to CNO, we contribute to other Government working groups or policy activities such as: the Evaluation of Primary Care Transformation Fund projects; Maternity and Cancer Patient experience surveys; and evidence reviews and research to inform understanding of the Scottish Government programme of integration of health and social care in the early years.

We have worked in partnership with the Scottish Executive Nursing Director's (SEND) on the clinical academic careers initiative and liaise (ad-hoc) with their research lead to understand current challenges and priorities.

We collaborate with Healthcare Improvement Scotland (HIS): in updating Best Practice Statements; contributing implementation science expertise to the Integrated Systems Workflow project; and in jointly sponsoring their annual research conference on improvement.

We similarly collaborate with NHS Education Scotland: developing a framework for clinical academic careers; producing a publication of clinical academic career stories; promoting clinical academic careers and supporting fellowship applications.

We sit on many other NHS related working groups or input our research to local NHS sites, examples include: developing methods for sustained quality improvement in partnership with NHS Greater Glasgow and Clyde; NHS Health Scotland's Primary Care Transformation Research and Evaluation Collaboration; NHS24 and Psychiatric Emergency Patient Journeys; NHS Lanarkshire's Distress Brief Intervention implementation; the Perinatal Mental Health Managed Clinical Network for Scotland; Scottish Ambulance Service R&D committee; and NHS Forth Valley's R&D Committee.

Over half of our staff/students are clinically trained and many maintain their clinical connections to the NHS. Their understanding of the clinical role, and delivery of care across different NHS environments, means that many of the ideas they pursue have come from problems they or their patients/carers have faced in the NHS. They understand what will be practical and acceptable in terms of research design. The Unit has often been approached by clinicians with a research need where we have encouraged the individual to pursue this as a research project with our support (via a PhD fellowship).

3. How does the Unit support patient and public involvement in research, training, and research capacity building?

The NMAHPRU has a Research Partnership Group (RPG) which functions at an Executive level within the Unit, contributing to its strategic planning as well as having direct input to its programmes of work and specific projects being developed within these programmes. Our Scientific Advisory Board also includes 2 PPI representatives. In addition, each research project has its own PPI strategy and input, usually more condition specific (e.g. Stroke) as required. The Unit has been commended for its approach to PPI with exemplary involvement demonstrated through initiatives such as our Stroke Research Advisory Group which has over 40 members, and our Maternal Mental Health (Scotland) Change Agents group.

We have led several research priority setting exercises including 3 James Lind Alliance Partnerships in the areas of: new mothers; stroke, and prolapse. We are lead researchers in methods of involving people in systematic reviews, and we have run workshops and online seminars in this area. Our ACTIVE project (involving a systematic synthesis of evidence relating to how stakeholders have been involved in systematic reviews; and interviews with stakeholders and researchers https://www.ncbi.nlm.nih.gov/pubmed/30997859) has resulted in an online learning resource aimed at supporting systematic reviewers to involve stakeholders (https://training.cochrane.org/involving-people).

We have been recognised for developing and implementing innovative ways of enabling equitable involvement of Stroke survivors from across Scotland (Pollock 2014). We have led and contributed to educational and training events for patients and the public. Examples include: CSO training sessions for PPI groups, a two-day summer school for members of Independent Cancer Patients' Voice (a charity set up to enhance patient and public involvement in cancer research), and training to enable Maternal Mental Health (Scotland) Change Agents to undertake their own research (including ethics applications, data collection and analysis).

Where appropriate we use novel and innovative strategies to identify and recruit a wide range of patient representatives. For example, for our project to develop interventions to increase physical activity among inactive young people with long term conditions, we used purposeful online recruitment via asthma-related Facebook pages, forum groups and other social networking sites. Two mother and baby groups in disadvantaged areas were co-applicants on a study investigating incentives for smoking cessation in pregnancy and breastfeeding to ensure harder to reach women had a voice. These are only some examples.

We have played a key role in highlighting that there are barriers to some subgroups of patients participating in health research, and that this has the potential to lead to inequalities in care. Our specific expertise relating to PPI in Stroke research has led to our contribution to NIHR resources for supporting Stroke researchers to enable participation of people with aphasia (see https://www.nihr.ac.uk/nihr-in-your-area/Stroke/aphasia.htm), and to us playing a key role supporting patients and public involvement in a number of collaborator-led projects.

We have used PPI extensively in co-designing interventions across our workstreams and especially behaviour change interventions which we believe enables better up-take and adherence. As well as involving people within our research projects we always aim to ensure that the results of our research are accessible to patients and the public. For example, we have hosted 'Life after Stroke' Open Days at Glasgow Caledonian University; attended by around 90 people, one-third who were Stroke survivors.

We have the added benefit of the support of our host HEIs for PPI. University of Stirling has provided funding to support a network and we used this network to recruit to our RPG. Glasgow Caledonian University has provided training in understanding and developing good PPI.

We support training and capacity building of healthcare professionals primarily through our involvement in delivering a significant part of the Masters in Research Methods within the Faculty of Health Sciences and Sport at University of Stirling (delivered by unit staff who are non-CSO funded) and through PhD supervision and support to NMAHPs in applying for

fellowship and studentship applications. The Unit has supervised 40 PhD students since 2010 and a further 11 Clinical Doctorate students. Many of our PhD and Clinical Doctorate students have undertaken part-time research studies alongside NHS, Third Sector, academic teaching, or international clinical careers.

Since 2012 the Unit, funded by a grant from the Chief Nursing Office, has coordinated and supported the Scottish Midwifery Research Collaboration (SMART) which was established following concerns about the potential for loss of senior research capacity in midwifery in Scotland. The award supported research projects in Robert Gordon, Dundee and Stirling Universities with collaborations involving all group members. This group was co-ordinated by [REDACTED] and brings together senior midwife researchers in Scotland to undertake research, write papers and build capacity for midwifery research (http://smartmidwifery.org.uk/).

We have a firm strategy within the Unit for developing capacity and capability within our own staff and students. We have our own Knowledge, Experience and Competencies Framework (modelled on but extending the Vitae Researcher Development Framework) which we expect all staff and students to use to assess training needs and to improve their skills as required. We support this with a complete set of textbooks provided to all new PhD students (which cover these competencies) and which are also available to staff, and via our rolling internal training programme which is driven by staff needs. This is supported by investment in external training or support as required.

Our approach ensures that staff who have worked in the unit are highly employable as well-rounded academics and clinical academics. This is evidenced by the significant number of contract researchers and PhD students who have gone on either to achieve lecturer positions in our host and other HEIs, or to achieve high profile clinical academic fellowships (e.g. Stroke Association Clinical Lectureship) or clinical academic posts such as Director of Research and Education at Strathcarron Hospice, or other high profile professional roles (e.g. Director of the Royal College of Midwives Scotland). Additionally, we have supported academic research sabbaticals (including hosting academics from within our host HEIs who can benefit from Unit expertise and grant writing activity) and international exchanges, visiting Professorships, and internships.

We run a series of grant writing workshops for Unit staff and use a variety of mechanisms for encouraging and supporting writing for publication (boot camps, guest speakers, writing buddies). Our Unit quarterly meetings are one-day learning events for all staff and students and also include external 'visitors' who approach the Unit for help or support with their research/research careers. This often involves colleagues from Health Improvement Scotland/NHS Education Scotland and other HEIs attending our learning events. The programme for these events is determined by staff/students according to their needs.

4. What is the added value of CSO's investment in Units?

The CSO's investment in the NMAHP Research Unit has transformed the quality and reputation of NMAHP research in Scotland, and beyond, through its sustained approach to addressing clinical problems through to impact. This has enabled the Unit to develop and maintain a critical mass of researchers with the necessary breadth and depth of skills required for evaluating NMAHP interventions and care delivery in the complex organisational setting

of the NHS and beyond. It has enabled the unit to develop capacity over the longer term and to ensure that such capacity is consolidated and secure (i.e. not vulnerable to loss if one person leaves).

The CSO investment has also allowed for a long term research strategy focused in key areas of NMAHP care (i.e. our workstreams in Stroke, Pelvic health, Maternal and child health, Health behaviour change, Long term condition management) which all contribute to our 3 programmes of research (Innovation in NMAHP Interventions, Transforming Care Delivery, and Maximising Data Usage in NMAHP Research). Our workstreams are designed to tackle (and stick with) a problem through to impact. This goes beyond focusing on individual projects as each workstream may require a series of projects to reach intended impact. The continuity of CSO funding enables the Unit to be problem focused and to seek funding over a number of years to conduct the necessary bodies of work for impact. This is demonstrated in our sustained programme of work in conservative management of pelvic organ prolapse which has developed the evidence base for interventions and also tackled problems of implementation which are now feeding into government policy with clear recommendations for actions.

The CSO core funding has supported key staff members to develop their research skills and reputation alongside the achievement of impact for important problems facing the NHS or its patients. The core staff have developed over the past 15-20 years to the point that 4/6 CSO funded posts have become Professors in recognition of their esteem in their fields (excluding the past and present Director(s)). All core funded staff, but especially the Professoriate, are recognised internationally for their research contribution in their respective fields (demonstrated in their positions on international committees, international collaborations or visiting or honorary Chairs at international institutions). The sustained CSO funding has enabled us to build our international reputation and standing, which continues to grow.

Having a critical mass of highly skilled researchers, known for their state of the art methodological skills, enables the Unit to be responsive to funding calls on many fronts – whether this is in response to Government requests for support or tenders, strategic collaborations (such as the Scottish Improvement Science Collaboration and the RCN Research Partnership), or specific priority funding calls (e.g. NIHR, MRC, Health Foundation, Stoke Association etc.). These skills also support research in other HEIs across Scotland and beyond. All externally funded projects will involve partners beyond our host institutions. The funding awarded to Unit-led or Unit-collaborating projects is shared by many institutions and the NHS. We currently have projects which involve the majority of HEIs across Scotland and the majority of NHS Boards.

The CSO funding comes with a certain reputational stamp which allows Unit staff to compete in the most highly competitive research environments. We acknowledge that the Unit and individual staff reputations are important, but there is some added kudos from being a CSO Unit which may enhance our ability to successfully attract awards. We maintain this reputation in delivering the research and associated high quality outputs to funders.

5. Do the current Unit funding arrangements support both research excellence and the production of research that is responsive to pressing health policy and practice needs or would different arrangements be more appropriate?

We believe the current arrangements have supported the Unit to develop research excellence (as commented in our recent review: "the Unit's research strategy reflects a mix of scientific excellence and translational outcomes"). There have been other initiatives to support 'NMAHP research' and clinical academic careers over the past 20 years in Scotland and all have fallen by the wayside when the short-term funding has expired. These schemes have been deemed necessary because the majority of care in the NHS is delivered by NMAHPs yet the evidence base for NMAHP practice is low. There is a recognised need to invest nationally in delivering high quality NMAHP research. In contrast to these schemes, the NMAHP RU has grown its expertise and reputation (alongside its grant income and research outputs) to a level of excellence and of international standing.

As regards responding to pressing health policy and practice needs, the NMAHP RU has certainly offered the CNO and the Primary Care Directorate access to a highly skilled team with capacity to respond to their requests in a timely fashion. However, this is also possible because the Unit (and arrangements with a host HEI) allows for re-investment of research overheads in additional posts. Equally, HEI investment in NMAHP research (and the Unit) would not be likely without the CSO core funding.

The main goal for the CSO and the HEI's is for the Unit to generate grant income and multiply their investment. There is no direct funding allocated to respond to immediate policy or practice needs. The current arrangements maintain a Unit with the critical mass of researchers with the right skills to be able to undertake such work (and we do as demonstrated in examples above), but does not support the actual conduct of any work for pressing policy or practice needs. In relation to practice needs, it is often more difficult to respond because we need to explain to practitioners the processes for applying for grant income to address their issue, and what the timescales for this would be, alongside the possibility that the first application may not be successful.

Please find below and attached some input from CRUK to inform the Strategic review of CSO core funded units. This includes:

1. Our recent policy report analysing the current state of medical research in Scotland – including recommendations for Scottish Government, the CSO and others.
2. Information and documents regarding our approach to funding research including our research infrastructure.

1. Policy report - Bench to Bedside: Optimising Medical Research in Scotland through Collaboration (https://bit.ly/2PrAmn1)

This report analyses the current state of medical research and makes recommendations to optimise Scotland's research sector. It explores the strengths and challenges of Scottish medical research as it competes and collaborates within the wider UK and global environment. Our analysis has been informed by interviews with key medical research stakeholders across Scotland.

Key findings

- Scotland has a strong research base, significantly overperforming in competitive research funding per capita.
- However, there is a need for policy action to maintain and expand on this success in the medium and long term. It is becoming increasingly difficult for universities in Scotland to individually compete for research funding.
- NHS workforce pressures and ways of working are reducing the ability of health professionals to engage in research, potentially restricting patient access to research in Scotland.

Key recommendations

- Universities, the Chief Scientist Office (CSO) and the Scottish Funding Council (SFC) should work together to maximise the impact of the Scottish Research Pooling Initiative and explore further mechanisms to support collaboration between research teams from multiple universities.
- The CSO should review the portfolio of clinical research funding available in Scotland, including access to NIHR funding and whether this can be expanded. The clinical research community should be consulted to ensure no gaps exist.
- The Scottish Government should increase its support for clinical academic development through increasing the funding of the CSO Clinical Academic Fellowship scheme.
- The impact of the potential loss of EU funds should be quantified and addressed.

Please find attached a copy of the full report and executive summary. You can also access these through our website. (https://www.cancerresearchuk.org/about-us/we-develop-policy/we-work-with-government/scotland)

2. CRUK approach to funding research including our research infrastructure

Our Research strategy and annual report (both also attached) provide an overview of our approach to funding and the portfolio of research that we fund. Also attached are application guidelines for our last Centres and ECMC call in 2016, which contains information on the thinking behind these initiatives and eligibility criteria; and the Panel Review and Recommendations from the Radiation Oncology Review, the latter of which is useful in understanding how we adapt infrastructure funding to the needs of the current situation.